



bp

Environmental Compliance and Advocacy Team  
925 South Ellery Drive  
San Pedro, CA 90732  
United States of America  
Telephone: (310) 521-8337

December 22, 2008

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Director,  
Air Enforcement Division  
Office of Regulatory Enforcement  
U.S. Environmental Protection Agency  
Mail Code 2242-A  
Ariel Rios Building  
1200 Pennsylvania Ave., NW  
Washington, DC 20460-0001

**Re:United States, et al., v. BP Exploration and Oil Co. Inc., Civil No. 2:96 CV 095 RL, N. D. Indiana,  
Hammond Division, Lozano, J.**

**Annual Heater and Boiler Update Report Pursuant to Paragraph 15 of the Consent Decree Amended  
October 18, 2004**

**NO EPA ACTION REQUIRED – For Information Only**

Dear Director:

Enclosed is the current "Annual Heater and Boiler Update Report" required by Paragraphs 15.H.iii. of the captioned Consent Decree. As we have previously advised USEPA and the United States, BP transferred ownership of the Toledo, Ohio refinery to BP-Husky Refining LLC in March of this year. Because a Consent Decree amendment memorializing this transfer has yet to be entered, this report is being submitted by BP but covers both the BP and the BP-Husky refineries,

As indicated in the report, BP currently anticipates that, absent unforeseen circumstances, installation of all heater and boiler controls required by the Decree will be completed by December 31, 2010.

Two copies of this update are enclosed. The first contains confidential information and is designated "Confidential Business Information pursuant to 40 CFR Part 2". By submission of these data, BP does not agree to the dissemination, release or provision of these data in any form to any other individual business, agency or other party, public or private. I am also providing a second copy of the Update Report that has been amended to delete the confidential information and may be publicly shared. As suggested in your August 1, 2002 letter to BP, we are submitting the CBI version in hard copy only. We will submit the non-CBI version in hard copy and in electronic format.

Please contact Mr. Ken Comey at (512) 394-1572 if you have any questions.

Sincerely,

Corrine S. Livingston  
Director, Project Sunshine

Enclosures

Cc: Director, Air Enforcement Division  
U.S. Environmental Protection Agency  
c/o MATRIX Environmental & Geotechnical Services  
120 Eagle Rock Avenue, 2<sup>nd</sup> Floor  
East Hanover, NJ 07936

Chief, Air Enforcement and Compliance Assurance Branch Air and Radiation Division, AE-17J  
U.S. Environmental Protection Agency, Region V  
77 West Jackson Boulevard  
Chicago, IL 60604-3590  
Attn: Compliance Tracker

csullivan@matrixnewworld.com  
Alonso.Richard@epa.gov  
Frank.Nathan@epa.gov

## BP Annual Heater and Boiler Update Report

### Appendix A

December, 2008

#### SECTION 1

##### NOx Emission Control Technology Installed

##### BP System-Wide - 2008

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a** (\*) for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Whiting	12PS H-1CS		Shutdown	NA	NA
Texas City	COKR-B201		next generation ULNB	0.04	CEM
Texas City	ALK3-F1001		next generation ULNB	0.03	CEM
Texas City	RHU-502B		next generation ULNB	0.05	CEM

Total

#### Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004

# BP Annual Heater and Boiler Update Report

## Appendix A

December, 2008

### SECTION 2

#### NOx Emission Control Technology Installed

#### BP System-Wide - 2007

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a** (\*) for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
N/A					
Total		-			

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004

## BP Annual Heater and Boiler Update Report

### Appendix A

December, 2008

#### SECTION 3

#### NOx Emission Control Technology Installed

#### BP System-Wide - 2006 (updated)

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a (\*)** for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Cherry Point	DHDS Stab Reboiler		next generation ULNB	0.03	CEM
Cherry Point	R1 Hydrocracker Reactor		next generation ULNB	0.02	CEM
Cherry Point	DHDS Charge Heater		next generation ULNB	0.03	CEM
Texas City	ISOM-B200		Shutdown	NA	NA
Texas City	ISOM-B1101		Shutdown	NA	NA
Texas City	UU3-303B		Shutdown	NA	NA
Texas City	UU4-B403		Shutdown	NA	NA
Toledo	Power Boiler		Shutdown	NA	NA
Toledo	Hydro ADHT		Shutdown	NA	NA
Whiting	Boiler 3 (1SPS)		Shutdown	NA	NA
Whiting	Boiler 4 (1SPS)		Shutdown	NA	NA

Total

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004

**BP Annual Heater and Boiler Update Report**  
**Appendix A**  
**December, 2008**

**SECTION 4**

**NOx Emission Control Technology Installed**  
**BP System-Wide - 2005**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a (\*)** for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Cherry Point	Boiler #2		Shutdown	NA	NA
Cherry Point	South Vacuum Htr		next generation ULNB	0.05	CEM
Toledo	Riley Boiler		Shutdown	NA	NA
Total					

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004

**BP Annual Heater and Boiler Update Report**  
**Appendix A**  
**December, 2008**

**SECTION 5**  
**NOx Emission Control Technology Installed**  
**BP System-Wide - 2004**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a (\*)** for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Texas City	HU2-101A		Shutdown	NA	NA
Texas City	HU2-101B		Shutdown	NA	NA
Texas City	HU2-109A		Shutdown	NA	NA
Texas City	HU2-109C		Shutdown	NA	NA
Texas City	PRS4-B410		SCR	0.01	CEM
Whiting	BOILER 1 (3 SPS)		current generation ULNB	0.06	CEM
Whiting	BOILER 4 (3 SPS)		current generation ULNB	0.05	CEM
Whiting	BOILER 8 (1SPS)		Shutdown	NA	NA
Whiting	BOILER 2 (1SPS)		Shutdown	NA	NA

Total

**Key:**

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004



# BP Annual Heater and Boiler Update Report

## Appendix A

December, 2008

### SECTION 6

#### NOx Emission Control Technology Installed

#### BP System-Wide - 2003

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a** (\*) for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	UNIT	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Texas City	PRS4-B420	Power 4		SCR	<0.01	CEM
Toledo	CO BOILER	FCCU		SNCR	0.05	CEM
Whiting	BOILER 2	3 SPS		current generation ULNB	0.05	CEM
Whiting	BOILER 3	3 SPS		current generation ULNB	0.04	CEM
Whiting	BOILER 6	3 SPS		current generation ULNB	0.04	CEM
Total						

#### Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NGB - Next Generation Burners

ULNB - Ultra Low NOx Burner System

NA - not applicable

(\*) - as amended October 18, 2004

**BP Annual Heater and Boiler Update Report****Appendix A****December, 2008****SECTION 7****NOx Emission Control Technology Installed****BP System-Wide - 2002 (updated)**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a (\*)** for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	UNIT	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Texas City	PS3B-401BC	PS 3B		next generation ULNB	0.04	CEM
Texas City	PS3B-401BB	PS 3B		next generation ULNB + SCR	<0.02	CEM
Texas City	PS3B-401BA	PS 3B		next generation ULNB + SCR	<0.02	CEM
Texas City	PS3B-402BE	PS 3B		SCR	<0.02	ST
Texas City	PS3B-402BA	PS 3B		Shutdown	NA	NA
Texas City	PS3B-402BC	PS 3B		Shutdown	NA	NA
Texas City	PS3B-402BD	PS 3B		Shutdown	NA	NA

Total

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004

**BP Annual Heater and Boiler Update Report**  
**Appendix A**  
**December, 2008**

**SECTION 8**  
**NOx Emission Control Technology Already Installed**  
**BP System-Wide - 2001 and Prior Years (updated)**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.a (\*)** for NOx emission control technology already installed as well as heaters and boilers shutdown and permits revoked.

Refinery	Source	UNIT	Lower of Max Firing Rate or Permit Limit mmbtu/hr (1)	NOx Controls Installed	Measured NOx Emissions lb/mmbtu	Emission Rate Determination Method (2)
Carson	D535 - No. 2 Reformer Reaction	Reformer		current generation ULNB	0.05	CEM
Carson	D1439 - No. 3 Reformer	Reformer		current generation ULNB	0.06	CEM
Carson	D29 - No. 21 Crude Heater	Crude		current generation ULNB	0.05	CEM
Carson	D67 - No. 52 Vacuum Heater	Crude		current generation ULNB	0.07	CEM
Carson	D250 - FCCU Preheater	FCCU		current generation ULNB	0.05	CEM
Carson	D570 - No. 1 Hydrogen Plant	Hydrogen		SCR	0.02	CEM
Carson	D27 - No. 1 Crude Unit	Crude		current generation ULNB	0.03	CEM
Carson	D1465 - No. 2 Hydrogen Plant	Hydrogen		SCR	0.02	CEM
Carson	D63 - No. 51 Vacuum Heater	Crude		SCR	0.01	CEM
Carson	D532 - No. 1 Reformer Reaction	Reformer		next generation ULNB	0.03	CEM
Carson	D629 - H/C Frac Reboiler	Hydrocrack		current generation ULNB	0.05	CEM
Carson	D31 - No. 4 Crude Heater	Crude		next generation ULNB	0.04	CEM
Carson	D151 - No. 1 Coker West	Coker		current generation ULNB	0.03	CEM
Carson	D153 - No. 1 Coker East	Coker		current generation ULNB	0.02	CEM
Carson	D155 - No. 2 Coker	Coker		current generation ULNB	0.04	CEM
Carson	D33 - No. 22 Crude Heater	Crude		current generation ULNB	0.03	CEM
Carson	D421 - Midbarrel Feed Heater	Fluid Feed HDS		next generation ULNB	0.02	CEM
Carson	D419 - Midbarrel Reboiler			next generation ULNB	0.02	CEM
Carson	D539 - No. 1 Reformer Desulf	Reformer		current generation ULNB	0.03	CEM
Texas City	PS3A-101BA	PS 3A		current generation ULNB	0.05	ST
Texas City	PS3A-101BB	PS 3A		current generation ULNB	0.05	ST
Texas City	PRS4-B430 <sup>1</sup>	Power 4		FGR	0.03	ST
Texas City	AU2-B601 <sup>3</sup>	AU2		current generation ULNB	0.02	ST
Texas City	UU3-306B	UU3		current generation ULNB	0.05	ST
Texas City	PS3A-102BA	PS 3A		current generation ULNB	0.04	ST
Texas City	PS3A-102BB	PS 3A		current generation ULNB	0.04	ST
Texas City	DDU-B302 <sup>1</sup>	DDU		current generation ULNB	0.03	ST
Texas City	ULC-101B <sup>1</sup>	ULC		current generation ULNB	0.03	ST
Texas City	DDU-B301 <sup>1</sup>	DDU		current generation ULNB	0.04	ST
Texas City	UU3-308B <sup>2</sup>	UU3		current generation ULNB	0.04	CEM
Texas City	COKR-B203	Coker		next generation ULNB	0.02	CEM
Toledo	ISO VAC	ISO		Shutdown	NA	NA
Toledo	COKER 3	COKER		current generation ULNB	0.05	ST
Toledo	VAC 1	VAC		current generation ULNB	0.06	ST
Whiting	WB-301	DDU		current generation ULNB	0.03	ST
Whiting	WB-302	DDU		current generation ULNB	0.03	ST

Total

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(2) - CEM, ST (stack test)

NA - not applicable

(\*) - as amended October 18, 2004

# BP Annual Heater and Boiler Update Report

## Appendix A

December, 2008

### SECTION 9

### Heater and Boiler Expected to be Controlled in 2009

### BP System-Wide

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.b. (\*)** for heaters and boilers expected to be controlled in 2007.

Year	Refinery	Boiler/Heater	MMBTU controlled (1)	Projected Emission Rate, MMBtu/hr	Type of Control
N/A					
<b>Total</b>			-		

Key:

(\*) - as amended October 18, 2004

(1) - CONFIDENTIAL BUSINESS INFORMATION

**BP Annual Heater and Boiler Update Report**  
**Appendix A**  
**December, 2008**

**SECTION 10**  
**Heaters and Boilers Expected to be Controlled in the Future**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.c. (\*)** for heaters and boilers expected to be controlled in the future.

This data is also used for calculating the "Control of Firing Demonstration".

Year	Refinery	Boiler/Heater	MMBTU controlled (1)	Type of Control
2010	Cherry Point	30- Utility Boiler #1		shutdown
2010	Cherry Point	30- Utility Boiler #3		shutdown
2010	Cherry Point	21-#2 Reformer Heater		next generation
2010	Toledo	ISO 2 STAB		current generation
2010	Toledo	ISO 2 SPLIT		current generation
2010	Whiting	BOILER 2 (3 SPS)		SCR
2010	Whiting	BOILER 3 (3 SPS)		SCR
2010	Whiting	BOILER 6 (3 SPS)		SCR
2010	Whiting	BOILER 1 (3 SPS)		SCR
2010	Whiting	BOILER 4 (3 SPS)		SCR
2010	Whiting	BOILER 5 (1SPS)		shutdown
2010	Whiting	BOILER 6 (1SPS)		shutdown
2010	Whiting	BOLER 7 (1 SPS)		shutdown
<b>Total</b>				

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(\*) - as amended October 18, 2004

**BP Annual Heater and Boiler Update Report**  
**Appendix A**  
**December, 2008**

**SECTION 11**  
**Ton per year reduction**  
**System Wide**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.d.** (\*) for heaters and boilers currently identified to meet system-wide control requirements of Paragraph 15.B

Date Controlled	Refinery	Source	Unit	Lower of Max Firing Rate or Permit Limit, MMBtu/Hr (1)	Baseline NOx Emissions, tpy	Permit Allowable NOx Emission Rate, lb/MMBtu	Allowable NOx Emissions, tpy	NOx Reduction, tpy
2002	Texas City	PS3B-402BA	PS 3B		77	-	-	77
2002	Texas City	PS3B-402BD	PS 3B		77	-	-	77
2002	Texas City	PS3B-401BA	PS 3B		213	0.020	22	191
2002	Texas City	PS3B-401BB	PS 3B		213	0.020	22	191
2002	Texas City	PS3B-402BE	PS 3B		31	0.020	13	17
2003	Texas City	PRS4-B420	Power 4		1,264	0.015	103	1,160
2004	Texas City	HU2-101B C/D	HU2		129	-	-	129
2004	Texas City	HU2-101A A/B	HU2		123	-	-	123
2004	Texas City	HU2-109C	HU2		33	-	-	33
2004	Whiting	BOILER 8	1 SPS		19	-	-	19
2004	Texas City	HU2-109A	HU2		17	-	-	17
2004	Texas City	PRS4-B410	Power 4		1,389	0.015	103	1,286
2005	Cherry Point	30- Utility Boiler #2	Utilities		198	-	-	198
2005	Toledo	POWER BOILER	UTIL		198	-	-	198
2005	Toledo	RILEY	UTIL		135	-	-	135
2006	Texas City	ISOM-B200	Isom		34	-	-	34
2006	Whiting	BOILER 4	1 SPS		27	-	-	27
2006	Texas City	ISOM-B1101	Isom		22	-	-	22
2010	Cherry Point	30- Utility Boiler #1	Utilities		188	-	-	188
2010	Cherry Point	30- Utility Boiler #3	Utilities		182	-	-	182
2010	Whiting	BOILER 5	1 SPS		39	-	-	39
2010	Whiting	BOILER 6	1 SPS		15	-	-	15
2010	Whiting	BOLER 7	1 SPS		10	-	-	10
2010	Whiting	BOILER 4	3 SPS		1,102	0.020	48	1,053
2010	Whiting	BOILER 1	3 SPS		1,073	0.020	48	1,024
2010	Whiting	BOILER 3	3 SPS		1,062	0.020	48	1,014
2010	Whiting	BOILER 2	3 SPS		1,005	0.020	48	957
2010	Whiting	BOILER 6	3 SPS		928	0.020	48	880
<b>Total</b>								<b>9,295</b>

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(\*) - as amended October 18, 2004

**Requirement 9,290**

# BP Annual Heater and Boiler Update Report

## Appendix A

December, 2008

### SECTION 12

#### Control of Firing Capacity Demonstration

#### System Wide

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.d.** (\*) for heaters and boilers currently identified to meet system-wide control requirements of Paragraph 15.B

Year	Refinery	Boiler/Heater	Actual MMBTU controlled (1)	Type of Control	Creditable MMBtu/Hr (1)
<1999	Carson	D535 - No. 2 Reformer Reaction		current generation	
<1999	Carson	D1439 - No. 3 Reformer		current generation	
<1999	Carson	D29 - No. 21 Crude Heater		current generation	
<1999	Carson	D67 - No. 52 Vacuum Heater		current generation	
<1999	Carson	D250 - FCCU Preheater		current generation	
<1999	Toledo	VAC 1		current generation	
<1999	Toledo	COKER 3		current generation	
<1999	Texas City	UU3-306B		current generation	
2000	Carson	D570 - No. 1 Hydrogen Plant		SCR	
2000	Carson	D27 - No. 1 Crude Unit		current generation	
2000	Carson	D1465 - No. 2 Hydrogen Plant		SCR	
2000	Carson	D63 - No. 51 Vacuum Heater		SCR	
2000	Carson	D151 - No. 1 Coker West		current generation	
2000	Carson	D153 - No. 1 Coker East		current generation	
2000	Carson	D33 - No. 22 Crude Heater		current generation	
2000	Carson	D539 - No. 1 Reformer Desulf		current generation	
2000	Texas City	PS3A-101BA		current generation	
2000	Texas City	PS3A-101BB		current generation	
2000	Texas City	PRS4-B430		FGR	
2000	Texas City	AU2-B601		current generation	
2000	Texas City	UU3-308B		current generation	
2000	Texas City	PS3A-102BA		current generation	
2000	Texas City	PS3A-102BB		current generation	
2000	Texas City	DDU-B302		current generation	
2000	Texas City	ULC-101B		current generation	
2000	Texas City	DDU-B301		current generation	
2000	Whiting	DDU WB-301		current generation	
2000	Whiting	DDU WB-302		current generation	
2001	Carson	D629 - H/C Frac Reboiler		current generation	
2001	Carson	D31 - No. 4 Crude Heater		next generation	
2001	Carson	D532 - No. 1 Reformer Reaction		next generation	
2001	Carson	D155 - No. 2 Coker		current generation	
2001	Carson	D421 - Midbarrel Feed Heater		next generation	
2001	Carson	D419 - Midbarrel Reboiler		next generation	
2001	Texas City	COKR-B203		next generation	
2001	Toledo	ISO VAC		Shutdown	
2002	Texas City	PS3B-401BC		next generation	
2002	Texas City	PS3B-401BA		SCR + next generation	
2002	Texas City	PS3B-401BB		SCR + next generation	
2002	Texas City	PS3B-402BE		SCR	

## Section 12

Year	Refinery	Boiler/Heater	Actual MMBTU controlled (1)	Type of Control	Creditable MMBtu/Hr (1)
2002	Texas City	PS3B-402BA		shutdown	
2002	Texas City	PS3B-402BC		shutdown	
2002	Texas City	PS3B-402BD		shutdown	
2003	Texas City	PRS4-B420		SCR	
2003	Toledo	CO BOILER		SNCR	
2003	Whiting	BOILER 2 (3 SPS)		SCR	
2003	Whiting	BOILER 3 (3 SPS)		SCR	
2003	Whiting	BOILER 6 (3 SPS)		SCR	
2004	Texas City	PRS4-B410		SCR	
2004	Texas City	HU2-101B C/D		shutdown	
2004	Texas City	HU2-101A A/B		shutdown	
2004	Texas City	HU2-109C		shutdown	
2004	Texas City	HU2-109A		shutdown	
2004	Whiting	1SPS BOILER 8		shutdown	
2004	Whiting	1SPS BOILER 2		shutdown	
2004	Whiting	BOILER 1 (3 SPS)		SCR	
2004	Whiting	BOILER 4 (3 SPS)		SCR	
2005	Cherry Point	30- Utility Boiler #2		shutdown	
2005	Cherry Point	10-South Vacuum Htr		next generation	
2005	Toledo	RILEY		Shutdown	
2006	Cherry Point	15-R1 Hydrocracker Reactor Htr		next generation	
2006	Cherry Point	13-DHDS Stab Reboiler		next generation	
2006	Cherry Point	13-DHDS Chg Htr		next generation	
2006	Texas City	ISOM-B200		shutdown	
2006	Texas City	ISOM-B1101		shutdown	
2006	Texas City	UU3-303B		shutdown	
2006	Texas City	UU4-B403		shutdown	
2006	Toledo	POWER BOILER		Shutdown	
2006	Toledo	HYDRO ADHT		shutdown	
2006	Whiting	1SPS BOILER 3		shutdown	
2006	Whiting	1SPS BOILER 4		shutdown	
2008	Texas City	COKR-B201		next generation	
2008	Texas City	ALK3-F1001		next generation	
2008	Texas City	RHU-502B		next generation	
2008	Whiting	12PS H-1CS		shutdown	
2010	Cherry Point	30- Utility Boiler #1		shutdown	
2010	Cherry Point	30- Utility Boiler #3		shutdown	
2010	Cherry Point	21-#2 Reformer Heater		next generation	
2010	Toledo	ISO 2 STAB		current generation	
2010	Toledo	ISO 2 SPLIT		current generation	
2010	Whiting	BOILER 5 (1SPS)		shutdown	
2010	Whiting	BOILER 6 (1SPS)		shutdown	
2010	Whiting	BOLER 7 (1 SPS)		shutdown	

Total

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(\*) - as amended October 18, 2004

Requirement

23,038



**BP Annual Heater and Boiler Update Report**  
**Appendix A**  
**December, 2008**

**SECTION 13**  
**Control of Firing Capacity Demonstration**  
**System Wide and By Refinery**

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.d. (\*)** for heaters and boilers currently identified to meet system-wide control requirements of Paragraph 15.B

<b>Refinery</b>	<b>Total Firing Rate &gt; 40 mmbtu/hr (1)</b>	<b>To-Date Firing Rate Controlled (1)</b>	<b>Total Firing Rate Controlled mmbtu/hr (1)</b>	<b>To-Date Firing Rate Controlled</b>	<b>% of Firing Rate Controlled</b>	<b>Minimum Decree Requirements</b>
Carson				98%	98%	30%
Cherry Point				14%	32%	30%
Texas City				64%	64%	30%
Toledo				45%	50%	30%
Whiting				41%	49%	30%

Key:

(1) - CONFIDENTIAL BUSINESS INFORMATION

(\*) - as amended October 18, 2004

## BP Annual Heater and Boiler Update Report

### Appendix A

December, 2008

#### SECTION 14

#### Annual NOx Emission Estimate for Heaters and Boilers BP Does Not Expect to Control

The following information is reported to satisfy the requirements of **Paragraph 15.H.iii.e.** (\*) for annual NOx emissions estimates. (1)

Year	NOx [tpy]
2007 Estimate (2) Uncontrolled NOx Emissions	4745

key:

(1) - The uncontrolled emissions may vary from year to year, since the final combination of controlled and uncontrolled sources has not been determined.

(2) - Previous years' estimates of annual emissions were demonstrated through statistically significant random sampling of the heaters and boilers identified on Appendix A that are not anticipated to be controlled pursuant to the requirements of Paragraph 15. This year, all heaters and boilers identified on Appendix A that are not anticipated to be controlled pursuant to the requirements of Paragraph 15 were used in the analysis. Emissions are consistent with each refinery's 2006 annual emissions inventory report.